CHANNEL CONDITION ESTIMATION
FOR PILOT COEFFICIENT SELECTION

ABSTRACT OF THE DISCLOSURE

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A multi-carrier modulation communications system and method (100) for providing channel estimation that uses a transmitter for inserting pilot symbols in a digital multi-carrier modulated radio frequency (RF) signal and a receiver for receiving the pilot symbols in multi-carrier modulation RF signal. In order to
10 provide channel estimation the receiver detects (101) channel power gains from a plurality of designated pilot symbols and calculates (103) both a speed parameter (S) and a multi-path parameter (M) for the channel receiving the pilot symbols. A channel model is then defined (105) based upon the speed parameter and multi-path parameter value and a predefined set of pilot coefficients is chosen (107) that
15 substantially matches the channel model. The resulting set of pilot coefficients is then utilized (109) for optimizing pilot symbol interpolation.